

PATENT CLAIMS

1. An expression system containing one or more nucleic acid(s), comprising
  - a) at least one nucleic acid for an IL-15/Fc fusion protein,
  - b) at least one promoter, and
  - c) at least one nucleic acid for a CD5 leader,

wherein said promoter and said nucleic acid for the CD5 leader are functionally linked to said nucleic acid for the IL-15/Fc fusion protein.

- 2. The expression system according to claim 1, wherein said promoter is a CMV promoter.
- 3. The expression system according to claims 1 or 2, wherein said promoter is part of a transcription-regulating unit, which additionally contains an intron, in particular intron A.
- 4. The expression system according to any of claims 1 to 3, wherein the Fc part of said fusion protein is an Fc fragment of an immunoglobulin G.
- 5. The expression system according to any of claims 1 to 4, additionally containing
  - d) at least one nucleic acid for a selectable marker gene.
- 6. The expression system according to any of claims 1 to 5, additionally containing at least one nucleic acid for a polyadenylation signal.

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7. The expression system according to any of claims 1 to 6, additionally containing ribosomes, amino acids and/or t-RNAs.
  8. The expression system according to any of claims 1 to 7, wherein said expression system comprises only one nucleic acid.
  9. The expression system according to any of claims 1 to 8, with the sequence of SEQ ID No. 1, SEQ ID No. 2 or SEQ ID No. 3 or a nucleic acid coding for a polypeptide of SEQ ID No. 4 or SEQ ID No. 5.
  10. A nucleic acid containing the components a) to c) of claims 1 to 4 and optionally component d) of claim 5.
  11. The nucleic acid containing said sequence of SEQ ID No. 1, SEQ ID No. 2 or 3 or a nucleic acid coding for a polypeptide of SEQ ID No. 4 or SEQ ID No. 5.
  12. A host cell containing an expression system according to any of claims 1 to 9 or a nucleic acid according to claims 10 or 11.
  13. The host cell according to claim 12, wherein said host cell is a mammalian cell.
  14. The host cell according to claims 12 or 13, wherein said host cell is a cell of the CHO cell line or its derivatives, in particular a CHO-K1 cell line.
  15. A method for preparing an IL-15/Fc fusion protein, comprising a. providing a host cell according to

any of claims 12 to 14, b. culturing said host cell,  
c. selecting, where appropriate, and  
d. isolating the expressed IL-15/Fc fusion protein.

16. The method according to claim 15, wherein said host cell is a mammalian cell, preferably a cell of the CHO cell line or its derivatives, particularly preferred a CHO-K1 cell line.
17. The method according to claims 15 or 16, wherein said IL-15/Fc fusion protein is prepared at a quantity of at least 10 pg/(cell x day), preferably at a quantity of at least 15 pg/(cell x day).
18. Use of an expression system according to any of claims 1 to 9, a nucleic acid according to claims 10 or 11 or a host cell according to any of claims 12 to 14 for preparing an IL-15/Fc fusion protein.
19. Use of a CD5 leader for expression of a protein in CHO cells and their derivatives, in particular CHO-K1 cells.
20. The use according to claim 19, wherein said expression of said protein is regulated by a CMV promoter, in particular in combination with intron A.